TMS 4 "The TITAAN (phase 2/3) mobile messaging system"

Royal Netherlands Army

Introduction

TMS 4 is developed for military messaging in a mobile domain. TMS 4 automatically distributes, registers and archives formal military messages. Messages are identified as formal messages as soon as requirements, such as military format and archiving, are applied.
TMS 4 is *open*, *flexible* and *user friendly* and uses *commercial off the shelf products*. TMS 4 uses *open* standards, which offers many kinds of connections with other systems. One of the design goals for TMS 4 is maximum *flexibility*, to be able to support various military concepts (e.g. ACP/RCP, Rear/Main/Forward).
TMS 4 is *user friendly*, because of the usage of templates and Microsoft look-and-feel. The TMS administration tools are Microsoft Management Console integrated and provide easy to use administration tools.

TMS 4 offers:

- ∑Formal military messaging between units:
  - independent of organisation structure of the receiving unit
  - distribution based on Subject Indicator Codes (SIC)
- Staff internal messaging independent of the command post concept
- Control over message traffic; registration, archiving and delivery control
- Remote and off-line working
- Low maintenance system
- Flexibility of the deployment scenario
- Flexibility when organisations or deployment change during an operation
- Support for more units/command posts on one server

Overview

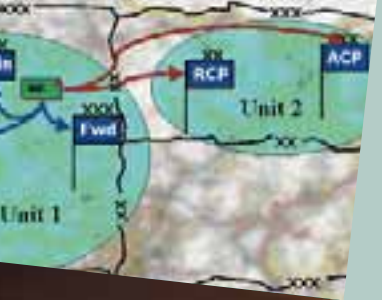
TMS 4 is build on top of Outlook 2003 on a Windows XP client platform. The server part of the system runs on Windows- and Exchange 2003 (server platform). TMS utilizes the rich functionality offered by these platforms as much as possible. The Windows 2003 Active Directory is used as main directory, in which all TMS configuration data is stored and shared throughout the organization. Exchange 2003 mail routing, public folders and distribution groups are all used within TMS 4.

TMS handles two types of formal messages:

- TMS messages.
  TMS messages are sent from unit to unit. The sender chooses to which unit the message will be addressed and selects a SIC. A unit is responsible for the internal distribution of an incoming message. This distribution is automated in TMS and based on the SIC.
- Staff Internal Messages.
  Staff Internal Messages are exchanged between shifts within the same unit (staff). The sender defines the distribution of the message within his staff.

Messages are composed within the TMS 4 client application: TMS-Form. The user has the option to choose between composing a TMS message (unit to unit) or a Staff Internal Message. The similarity between the TMS forms and the standard Outlook 2003 forms is no coincidence. TMS follows Microsoft user interface standards so personnel that are used to work with Outlook will be familiar to TMS within a very short timeframe.

Incoming TMS messages are distributed within a unit based on the SIC. The outgoing messages are always distributed within the user's own unit according to the SIC, so other staff sections are informed.



Staff Internal Messages can be sent directly to mailboxes of the own staff. As these messages are considered to contain military information classification and handling are part of the message.

Subject Indicator Code

The SIC is used to standardize the message distribution within national- and international staffs. The NATO Subject Indicator System (NASIS) regulations are described in ACP 117 NS 2.

The SIC is very important for the distribution of incoming TMS messages (unit to unit). Therefore, it is crucial to compose a subset of SICs for each exercise or operation; the SOP list. The SOP list offers the user to compose a message and select the relevant SICs from the SOP list.

One recipient within a staff is always responsible for handling a message in name of the commander. This recipient is called the action recipient. Other parts of the staff may subscribe to the same SIC as info addressee, but are not responsible for the handling of the message. The action- and info staff sections are clearly displayed in TMS-Form.

The SOP list can be managed within a TMS snap-in, which normally is used by the Staff Message Center (SMC). An incoming TMS message with a SIC, which is not subscribed to any staff section, will be escalated to the SMC. The SMC is then responsible for the message handling. Messages, which are not handled in time by the action recipient, also will be escalated to the SMC so action within the staff can be taken.

Information planning. The creation of the SOP list and the SIC subscription administration is not only a task of the S6 or G6. The overall success of the exercise or operation depends on the management of information. Therefore this process should be an interaction between the Chief of staff, the information manager and the heads of sections. This process can differ per staff and is dependant on the delegation of control by the commander and on the organisational structure of a staff.

TMS-Form

The TMS 4 forms offer the user ways to compose formal messages (internal and external), to read formal messages and to forward/reply formal messages. The forms are used within Outlook 2003 and look like standard Outlook forms; this provides a consistent interface. The integration within Outlook 2003 and Exchange 2003 offers many possibilities. Standard Outlook- and Exchange features can be applied on TMS messages:

- Inbox rules;
- Message attachments;
- Folder views;
- Mailbox- and message size limits;

TMS-Form offers an Outlook form look-alike interface with military specific properties: SIC, precedence, handling, classification, etc. These properties differ slightly between internal- and external formal messages, because the requirements are not the same.

Administration

TMS 4 is administrated within Microsoft Management Console (MMC) snap-ins. The MMC main goal is to support simplified administration through integration, delegation, task orientation, and overall interface simplification. The TMS 4 snap-ins seamlessly integrates within the MMC and presents a consistent user interface.
The overall TMS administration is divided into five roles:

- TMS Domain administrator: create and delete army units and command posts.
- TMS Unit administrator: manage army unit specific data (e.g. SOP list).
- TMS Command Post administrator: manage command posts (shifts and archives).
- TMS Information manager: SIC subscriptions management.
- TMS Planner: prepare military operations.

Each administrative role is implemented as Windows 2003 security group. Administrators can be member of several security groups to be able to perform multiple TMS administrative tasks.

Previous versions

TMS 2 is within the RNLA still in use for units with a Windows NT 4 – Exchange 5.5 platform. TMS 2 doesn't support Staff Internal Messaging, remote and off-line working. TMS 3 is in use for units using the TITAAN phase 1 platform. This platform is based on Windows and Exchange 2000 with a Windows and Office 2000 client. TMS 3 does support Staff Internal Messaging, but doesn't support remote and off-line working.

Summary

TMS 4 characteristics:

- Automatic message archiving;
- Automatic message distribution;
- Supports the ACP/RCP concept as well as the Rear/Main/Forward concept;
- Integrates and uses the Windows 2000/Exchange 2000 platform;
- Microsoft look and feel;
- Uses open standards (e.g. LDAP, SMTP, XML, etc);